

8. Now imagine that you did this test again, but this time, you dropped a feather with the three balls. Write a prediction describing what you think will happen this time and WHY. Remember to use vocabulary that we have learned in class. (3)

- ① Balls Fall first. Feather last because
- ② It catches more air resistance.
- ③ Balls more aerodynamic.

① - I Predict ... If ... then ... Because ...

9. Imagine that you are trying to push your friend in a box. Describe what kind of friction is created between the ground and the box. Now describe a type of friction that you could change this into to make it easier to push your friend. What would you do to change the type of friction between the box and the ground? (3)

- ① Sliding Friction - Two solid surfaces
- change to either ② Rolling Friction
- by adding wheels ③
- or ② fluid friction by adding a lubricant. ③

10. You have been hired by Toyota to design a new car. Use the following words to describe how you would design the car to be fast: Mass, Aerodynamic Design, Air Resistance, Friction, and Velocity. Think about the three big labs we have done to help with your ideas. (3)

- ① Use words
- ② Describe each word in context of making car fast
- ③ Say why it makes car fast.